Amendments to Claims

IN THE CLAIMS

- 1. (ORIGINAL) A thermoplastic resin composition for laser welding comprising:
 - 1) thermoplastic resin; and
 - 2) laser-transmitting black colorant comprising amine salt of anthraquinone dve.
- 2. (CURRENTLY AMENDED) A thermoplastic resin composition for laser welding comprising:
 - 1) thermoplastic resin; and,
 - 2) laser-transmitting black colorant comprising amine salt of anthraquinone dyes of formula [I] or formula [II],

wherein [Formula] formula [I] is:

$$\begin{bmatrix} R^8 & O & R^1 \\ R^7 & R^8 & O \\ R^6 & R^5 & O \end{bmatrix} R^1$$

$$R^1 - R^2$$

$$R^2 - R^3$$

wherein R¹ to R⁸, which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, cyclohexylamide, sulfonyl, formula [I-a], or -Y-W, and at least one of R¹ to R⁸ is of formula [I-a]; wherein Y is S, O, or NH; wherein W is selected from [unsubstituted or substituted] alkyl group, alkenyl group, and [unsubstituted or substituted] aryl group; wherein (Z)ⁿ⁺ represents ammonium ion or a cation derived from an organic amine compounds or a basic dye; wherein n is 1 or 2, m¹ is an integer from 1 to 4 and K¹ is the ratio of m¹/n;

and wherein formula [I-a] is:

$$R^9$$
 R^{10}
 R^{11}

wherein X is O or NH, and R⁹ to R¹³, which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, N-alkylamide, N-arylamide, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, or sulfonyl; wherein at least one of R¹ to R⁸ and R⁹ to R¹³ is sulfonyl group; and wherein formula [II] is:

wherein R⁴⁷ to R⁵², which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, N-alkylamide,N-arylamide, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, or sulfonyl; and at least one of R⁴⁷ to R⁵² is of sulfonyl; and [Formula] formula J in formula [II] is selected from formula [II-a] or formula [II-b] and binds two anthraquinone,

Wherein formula [II-a] is:

and formula [II-b] is:

wherein R^{53} to R^{54} , which may be the same or different, are independently selected from the group consisting of alkyl(having 1 to 8 carbon atoms) or hydrogen;

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and wherein $(F)^{h+}$ represents ammonium ion or a cation derived from an organic amino compounds or a basic dye wherein h is 1 or 2, m⁴ is an integer from 1 to 4 and K⁴ is the ratio of m⁴/h.

- 3. (ORIGINAL) The composition of claim 1 further comprising a second dye mixed with said amine salt of said anthraquinone dye to produce a laser-transmitting black dye.
- 4. (ORIGINAL) The composition of claim 2 further comprising a second dye mixed with said amine salt of a said anthraquinone dye to produce a laser-transmitting black dye.
- 5. (ORIGINAL) The composition of Claim 4, wherein said second dye is selected from the group consisting of perinone dyes, monoazo complex dyes, anthrapyridone dyes and anthraquinone dyes.
- 5. (ORIGINAL) The composition of Claim 2 further comprising (i) a red dye to be mixed with said amine salt of said anthraquinone dye to produce a laser-transmitting black dye, said red dye selected from the group consisting of perinone dyes, monoazo complex dyes, and anthrapyridone dyes; and (ii) an additional yellow dye to be added to said mixture selected from the group consisting of monoazo complex dyes and anthraquinone dyes.
- 7. (ORIGINAL) The composition of any one of claims 1-6 in which said thermoplastic resin is polyamide or polyester.
- 8. (ORIGINAL) The composition of Claim 7, further comprising reinforcing agent.
- 9. (ORIGINAL) A laser-transparent article formed from the composition of any one of Claims 1-6.
- 10. (ORIGINAL) An article formed by laser welding an opaque article with the laser-transparent article of Claim 9.

- 11. (ORIGINAL) A laser-transmitting black colorant suitable for being mixed with a thermoplastic resin comprising at least amine salt of anthraquinone dyes.
- 12. (CURRENTLY AMENDED) A laser-transmitting black colorant suitable for being mixed with a thermoplastic resin comprising amine salt of anthraquinone dyes of formula [I] or formula [II],

wherein [Formula] formula [I] is:

$$\begin{bmatrix} R^{7} & R^{8} & O & R^{1} \\ R^{7} & R^{8} & O & R^{1} \\ R^{6} & R^{5} & O & R^{4} \end{bmatrix} R^{2}$$

$$K^{1}(Z)^{n+}$$

wherein R¹ to R⁸, which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, cyclohexylamide, sulfonyl, formula [I-a], or -Y-W, and at least one of R¹ to R⁸ is of formula [I-a]; wherein Y is S, O, or NH; wherein W is selected from [unsubstituted or substituted] alkyl group, alkenyl group, and [unsubstituted or substituted] aryl group; wherein (Z)ⁿ⁺ represents ammonium ion or a cation derived from an organic amine compounds or a basic dye; wherein n is 1 or 2, m¹ is an integer from 1 to 4 and K¹ is the ratio of m¹/n;

and wherein formula [I-a] is:

$$R^9$$
 R^{10}
 R^{11}
 R^{12}

wherein X is O or NH, and R⁹ to R¹³, which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, N-alkylamide, N-arylamide, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, or sulfonyl; wherein at least one of R¹ to R⁸ and R⁹ to R¹³ is sulfonyl group; and wherein formula is [II]:

wherein R⁴⁷ to R⁵², which may be the same or different, are independently selected from the group consisting of H, alkyl, aryl, alkenyl, alkoxy, amino, N-alkylamide,N-arylamide, hydroxy, halogen atom, acyl, acyloxy, acylamide, acyl-N-alkylamide, carboxyl, alkoxycarbonyl, or sulfonyl; and at least one of R⁴⁷ to R⁵² is of sulfonyl; and [Formula] formula J in formula [II] is selected from formula [II-a] or formula [II-b] and binds two anthraquinone,

Wherein the formula [II-a] is:

and wherein the formula [II-b] is:

wherein R^{53} to R^{54} , which may be the same or different, are independently selected from the group consisting of alkyl(having 1 to 8 carbon atoms) or hydrogen; and wherein $(F)^{h+}$ represents ammonium ion or a cation derived from an organic amino compounds or a basic dye wherein h is 1 or 2, m^4 is an integer from 1 to 4 and K^4 is the ratio of m^4 / h.

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13. (ORIGINAL)The composition of Claim 12, where in the laser-transmitting black colorant suitable for being mixed with a thermoplastic resin comprising at least amine salt of anthraquinone dyes of formula [I] where as at least one of R⁹, R¹⁰, R¹¹, R¹² and R¹³ of formula [I-a] is sulfonyl group.